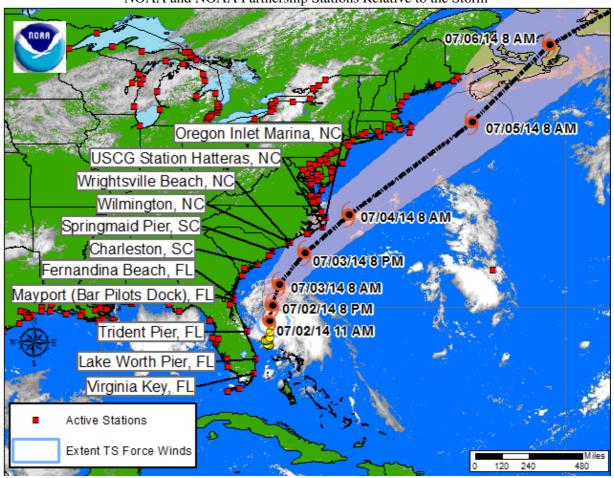


NOAA and NOAA Partnership Stations Relative to the Storm



Storm Analysis

As of July 2, 12:00 EDT, water levels from Florida to North Carolina are elevated 0.4 to 1.1 ft above normal tide levels. Winds are increased in Florida and are increasing in South Carolina and North Carolina, with wind speeds being between 6 to 16 knots. Wind gusts up to 20 knots have been observed at Trident Pier and Mayport, FL. Barometric pressure has leveled in Florida, it is falling across South Carolina and North Carolina.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: KG

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

TROPICAL STORM ARTHUR ADVISORY NUMBER 7 1100 AM EDT WED JUL 02 2014

...TROPICAL STORM WARNING ISSUED FOR THE NORTH CAROLINA COAST...

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY...

A TROPICAL STORM WARNING HAS BEEN ISSUED FROM LITTLE RIVER INLET NORTH CAROLINA TO THE NORTH CAROLINA/VIRGINIA BORDER INCLUDING PAMLICO AND EASTERN ALBEMARLE SOUNDS.

THE TROPICAL STORM WATCH FOR THE EAST COAST OF FLORIDA HAS BEEN DISCONTINUED.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT...

A HURRICANE WATCH IS IN EFFECT FOR...

- * BOGUE INLET TO OREGON INLET NORTH CAROLINA
- * PAMLICO SOUND

A TROPICAL STORM WARNING IS IN EFFECT FOR...

- * LITTLE RIVER INLET NORTH CAROLINA NORTHWARD TO THE NORTH CAROLINA/ VIRGINIA BORDER
- * EASTERN ALBEMARLE SOUND
- * PAMLICO SOUND

A TROPICAL STORM WATCH IS IN EFFECT FOR...

* SOUTH OF LITTLE RIVER INLET TO SOUTH SANTEE RIVER SOUTH CAROLINA

A HURRICANE WATCH MEANS THAT HURRICANE CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA...IN THIS CASE WITHIN THE NEXT 36 HOURS. ANY DEVIATION OF THE FORECAST TRACK TO THE LEFT...OR AN INCREASE IN THE FORECAST SIZE OF ARTHUR WOULD LIKELY REQUIRE THE ISSUANCE OF HURRICANE WARNINGS FOR ALL OR PART OF THE HURRICANE WATCH AREA.

A TROPICAL STORM WARNING MEANS THAT TROPICAL STORM CONDITIONS ARE EXPECTED SOMEWHERE WITHIN THE WARNING AREA WITHIN 36 HOURS.

A TROPICAL STORM WATCH MEANS THAT TROPICAL STORM CONDITIONS ARE POSSIBLE WITHIN THE WATCH AREA...IN THIS CASE IN 24 TO 36 HOURS.

INTERESTS ALONG THE UNITED STATES EAST COAST NORTH OF THE WARNING

AREA...PRIMARILY IN SOUTHEASTERN NEW ENGLAND...SHOULD MONITOR THE PROGRESS OF TROPICAL STORM ARTHUR.

FOR STORM INFORMATION SPECIFIC TO YOUR AREA...INCLUDING POSSIBLE INLAND WATCHES AND WARNINGS...PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE.

DISCUSSION AND 48-HOUR OUTLOOK

AT 1100 AM EDT...THE CENTER OF TROPICAL STORM ARTHUR WAS LOCATED NEAR LATITUDE 29.1 NORTH...LONGITUDE 79.1 WEST. ARTHUR IS MOVING TOWARD THE NORTH NEAR 7 MPH...AND THIS MOTION IS EXPECTED TO CONTINUE TODAY. A TURN TOWARD THE NORTH-NORTHEAST IS EXPECTED TONIGHT...FOLLOWED BY A TURN TOWARD THE NORTHEAST WITH AN INCREASE IN FORWARD SPEED ON THURSDAY. THE CENTER OF ARTHUR IS

EXPECTED TO PASS EAST OF NORTHEASTERN FLORIDA TONIGHT AND MOVE PARALLEL TO THE COASTS OF SOUTH AND NORTH CAROLINA DURING THE NEXT 24 TO 36 HOURS.

MAXIMUM SUSTAINED WINDS REMAIN NEAR 60 MPH 95 KM/H...WITH HIGHER GUSTS. SOME STRENGTHENING IS FORECAST DURING THE NEXT 48 HOURS...AND ARTHUR IS EXPECTED TO BECOME A HURRICANE BY THURSDAY.

TROPICAL STORM FORCE WINDS EXTEND OUTWARD UP TO 80 MILES...130 KM FROM THE CENTER.

THE ESTIMATED MINIMUM CENTRAL PRESSURE FROM BOTH NOAA AND AIR FORCE RECONNAISSANCE PLANES WAS 997 MB.

HAZARDS AFFECTING LAND

WIND...TROPICAL STORM CONDITIONS ARE POSSIBLE WITHIN THE TROPICAL STORM WATCH AREA BY THURSDAY AFTERNOON...AND ARE EXPECTED WITHIN THE TROPICAL STORM WARNING AREA BY THURSDAY EVENING. HURRICANE CONDITIONS ARE POSSIBLE WITHIN THE HURRICANE WATCH AREA BY THURSDAY NIGHT.

STORM SURGE...THE COMBINATION OF A DANGEROUS STORM SURGE AND THE TIDE WILL CAUSE NORMALLY DRY AREAS NEAR THE COAST TO BE FLOODED BY RISING WATERS. THE WATER COULD REACH THE FOLLOWING HEIGHTS ABOVE GROUND IF THE PEAK SURGE OCCURS AT THE TIME OF HIGH TIDE...

THE COAST OF NORTH CAROLINA...2 TO 4 FT

THE HIGHEST WATER WILL OCCUR ALONG THE IMMEDIATE COAST IN AREAS OF ONSHORE FLOW. THE SURGE WILL BE ACCOMPANIED BY LARGE AND DAMAGING WAVES. SURGE-RELATED FLOODING DEPENDS ON THE RELATIVE TIMING OF THE SURGE AND THE TIDAL CYCLE...AND CAN VARY GREATLY OVER SHORT DISTANCES. FOR INFORMATION SPECIFIC TO YOUR AREA...PLEASE SEE

PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE OFFICE AND THE NEW EXPERIMENTAL POTENTIAL STORM SURGE FLOODING MAP FOR MORE DETAILS.

RAINFALL...ARTHUR IS EXPECTED TO PRODUCE TOTAL RAINFALL ACCUMULATIONS OF 1 TO 2 INCHES ACROSS THE EASTERN FLORIDA PENINSULA AND OVER COASTAL AREAS OF NORTH CAROLINA THROUGH THURSDAY. ISOLATED MAXIMUM AMOUNTS OF 4 INCHES ARE POSSIBLE. RAINS ASSOCIATED WITH ARTHUR ARE EXPECTED TO DIMINISH ACROSS THE NORTHWESTERN BAHAMAS TODAY.

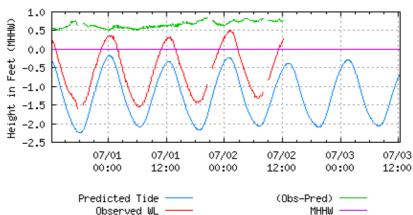
SURF...SWELLS GENERATED BY ARTHUR ARE AFFECTING PORTIONS OF THE EAST-CENTRAL COAST OF FLORIDA. THESE SWELLS ARE LIKELY TO CAUSE LIFE-THREATENING SURF AND RIP CURRENTS. THESE HAZARDOUS CONDITIONS WILL GRADUALLY SPREAD NORTHWARD ALONG THE COASTS OF NORTHEAST FLORIDA...GEORGIA...AND SOUTH CAROLINA TODAY. FOR MORE INFORMATION...PLEASE MONITOR PRODUCTS ISSUED BY YOUR LOCAL NATIONAL WEATHER SERVICE FORECAST OFFICE.

\$\$ FORECASTER AVILA

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

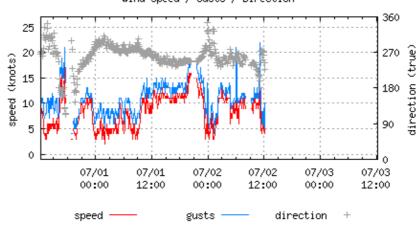
Jump to: Virginia Key - Water Level, Virginia Key - Winds, Lake Worth Pier - Water Level, Lake Worth Pier - Barometric, Trident Pier - Water Level, Trident Pier - Winds, Trident Pier - Barometric, Mayport (Bar Pilots Dock) - Water Level, Mayport (Bar Pilots Dock) - Winds, Mayport (Bar Pilots Dock) - Barometric, Fernandina Beach - Water Level, Fernandina Beach - Winds, Fernandina Beach - Barometric, Charleston - Water Level, Charleston - Winds, Charleston - Barometric, Charleston - Air/Water Temp, Springmaid Pier - Winds, Springmaid Pier - Barometric, Springmaid Pier - Air/Water Temp, Wrightsville Beach - Water Level, Wrightsville Beach - Winds, Wrightsville Beach - Barometric, Wrightsville Beach - Air/Water Temp, Wilmington - Water Level, Wilmington - Barometric, Wilmington - Air/Water Temp, USCG Station Hatteras - Water Level, USCG Station Hatteras - Winds, USCG Station Hatteras - Water Level, Oregon Inlet Marina - Water Level, Oregon Inlet Marina - Air/Water Temp

NOAA/NOS/CO-OPS <u>8723214 Virginia Key, FL</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

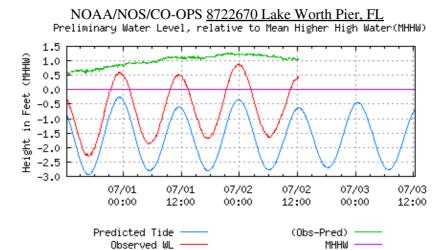


Last Observed Sample: 07/02/2014 12:18 (EDT). Data relative to MHHW Observed: 0.36 ft. Predicted: -0.48 ft. Residual: 0.84 ft. Historical Maximum Water Level: Oct 24 2005, 2.58 ft. Next High Tide: 07/02/2014 13:13 (EDT), -0.38 ft.

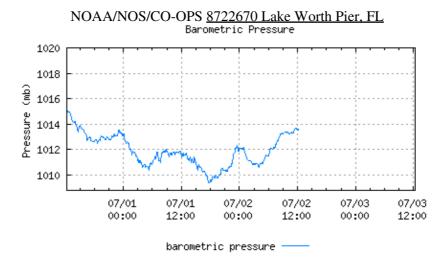
NOAA/NOS/CO-OPS <u>8723214 Virginia Key, FL</u> Wind Speed / Gusts / Direction



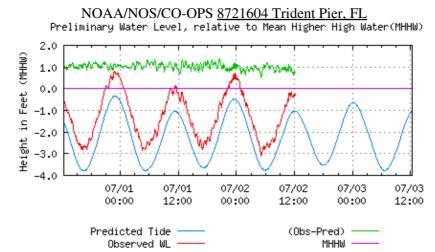
Last Observed Sample: 07/02/2014 12:18 (EDT) Wind Speed: 9 knots Gusts: 11 knots Direction: 192° T



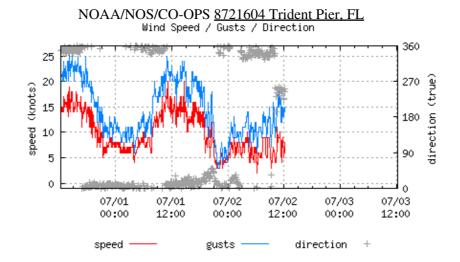
Last Observed Sample: 07/02/2014 12:12 (EDT). Data relative to MHHW Observed: 0.43 ft. Predicted: -0.63 ft. Residual: 1.06 ft. Historical Maximum Water Level: Nov 23 1984, 1.88 ft. Next High Tide: 07/02/2014 12:14 (EDT), -0.63 ft.



Last Observed Sample: 07/02/2014 12:12 (EDT)
Barometric Pressure: 1013.5 mb



Last Observed Sample: 07/02/2014 12:18 (EDT). Data relative to MHHW Observed: -0.32 ft. Predicted: -1.04 ft. Residual: 0.72 ft. Historical Maximum Water Level: Sep 26 2004, 4.01 ft. Next High Tide: 07/03/2014 00:09 (EDT), -0.64 ft.

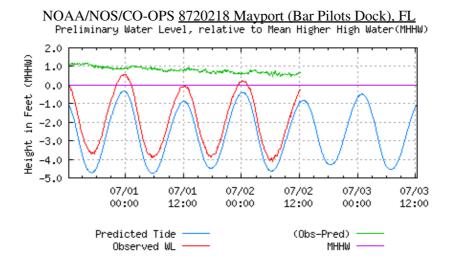


Last Observed Sample: 07/02/2014 12:18 (EDT) Wind Speed: 6 knots Gusts: 15 knots Direction: 248° T

NOAA/NOS/CO-OPS 8721604 Trident Pier, FL Barometric Pressure 1020 1018 Pressure (mb) 1016 1014 1012 1010 07/01 07/01 07/02 07/02 07/03 07/03 00:00 12:00 00:00 12:00 00:00 12:00 barometric pressure

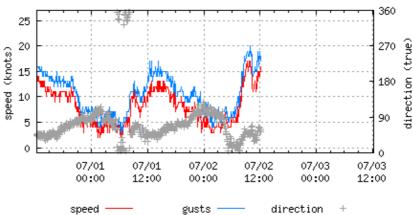
Last Observed Sample: 07/02/2014 12:18 (EDT)

Barometric Pressure: 1011.5 mb



Last Observed Sample: 07/02/2014 12:18 (EDT). Data relative to MHHW Observed: -0.24 ft. Predicted: -0.88 ft. Residual: 0.64 ft. Historical Maximum Water Level: Sep 27 2004, 2.47 ft. Next High Tide: 07/02/2014 12:46 (EDT), -0.83 ft.

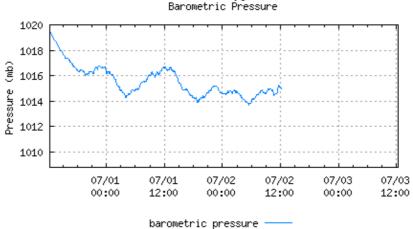
NOAA/NOS/CO-OPS $\underline{8720218\ Mayport\ (Bar\ Pilots\ Dock)}, FL$ Wind Speed / Gusts / Direction



Last Observed Sample: 07/02/2014 12:18 (EDT)

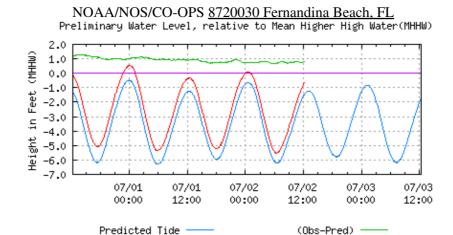
Wind Speed: 16 knots Gusts: 19 knots Direction: 57° T

NOAA/NOS/CO-OPS 8720218 Mayport (Bar Pilots Dock), FL



Last Observed Sample: 07/02/2014 12:18 (EDT)

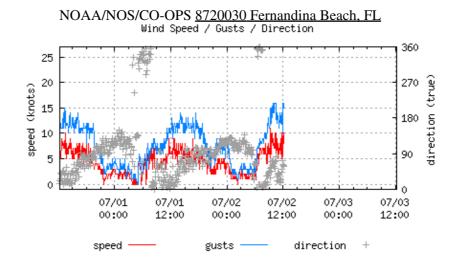
Barometric Pressure: 1015.0 mb



Last Observed Sample: 07/02/2014 12:18 (EDT). Data relative to MHHW Observed: -0.59 ft. Predicted: -1.39 ft. Residual: 0.80 ft. Historical Maximum Water Level: Oct 2 1898, 6.94 ft. Next High Tide: 07/02/2014 13:03 (EDT), -1.23 ft.

MHHW

Observed WL



Last Observed Sample: 07/02/2014 12:18 (EDT) Wind Speed: 10 knots Gusts: 18 knots Direction: 59° T

NOAA/NOS/CO-OPS 8720030 Fernandina Beach, FL Barometric Pressure 1020 1018 Pressure (mb) 1016 1014 1012 1010 07/01 07/01 07/02 07/02 07/03 07/03 00:00 00:00 12:00 00:00 12:00 12:00

barometric pressure —— Last Observed Sample: 07/02/2014 12:18 (EDT)

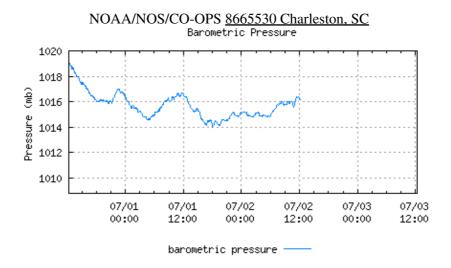
Barometric Pressure: 1013.8 mb

NOAA/NOS/CO-OPS 8665530 Charleston, SC Preliminary Water Level, relative to Mean Higher High Water(MHHW) 1.0 Height in Feet (MHHW) 0.0 -1.0 -2.0 -3.0 -4.0 -5.0 -6.0 07/01 07/02 07/02 07/03 07/01 07/03 00:00 12:00 00:00 12:00 00:00 12:00 Predicted Tide (Obs-Pred) Observed WL MHHW

Last Observed Sample: 07/02/2014 12:12 (EDT). Data relative to MHHW Observed: -0.53 ft. Predicted: -1.13 ft. Residual: 0.60 ft. Historical Maximum Water Level: Sep 21 1989, 6.76 ft. Next High Tide: 07/03/2014 00:08 (EDT), -0.62 ft.

NOAA/NOS/CO-OPS 8665530 Charleston, SC Wind Speed / Gusts / Direction 360 20 270 direction (true) speed (knots) 15 180 10 90 07/01 07/01 07/02 07/02 07/03 07/03 00:00 12:00 00:00 12:00 00:00 12:00 speed gusts direction Last Observed Sample: 07/02/2014 12:12 (EDT)

Wind Speed: 14 knots Gusts: 18 knots Direction: 153° T



Last Observed Sample: 07/02/2014 12:12 (EDT)
Barometric Pressure: 1016.2 mb

NOAA/NOS/CO-OPS 8665530 Charleston, SC Air / Water Temperature

water temp. — air temp — Last Observed Sample: 07/02/2014 12:12 (EDT) Water Temperature: 84.4° F Air Temperature: 82.6° F

07/02

00:00

07/02

12:00

07/03

00:00

07/03

12:00

07/01

00:00

07/01

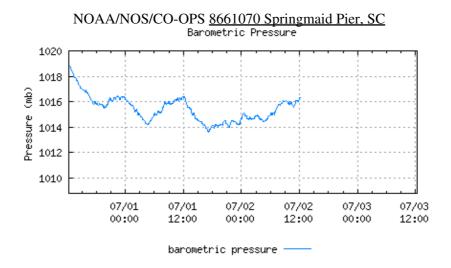
12:00

NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC Preliminary Water Level, relative to Mean Higher High Water(MHHW) 1.0 Height in Feet (MHHW) 0.0 -1.0 -2.0 -3.0 -4.0 -5.0 -6.0 07/01 07/02 07/02 07/03 07/03 07/01 00:00 12:00 00:00 12:00 00:00 12:00 Predicted Tide (Obs-Pred) Observed WL MHHW

Last Observed Sample: 07/02/2014 12:12 (EDT). Data relative to MHHW Observed: -0.93 ft. Predicted: -1.25 ft. Residual: 0.32 ft. Historical Maximum Water Level: Jan 1 1987, 3.65 ft. Next High Tide: 07/02/2014 23:45 (EDT), -0.81 ft.

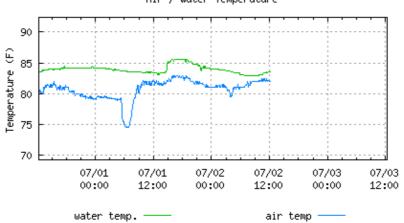
NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC Wind Speed / Gusts / Direction 360 20 270 direction (true) speed (knots) 15 180 10 90 5 07/01 07/01 07/02 07/02 07/03 07/03 00:00 12:00 00:00 12:00 00:00 12:00 speed gusts direction Last Observed Sample: 07/02/2014 12:12 (EDT)

Wind Speed: 14 knots Gusts: 16 knots Direction: 175° T



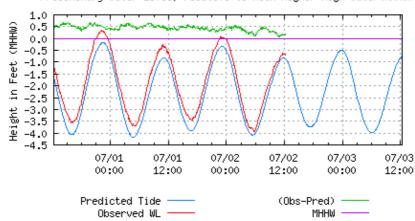
Last Observed Sample: 07/02/2014 12:12 (EDT)
Barometric Pressure: 1016.3 mb

NOAA/NOS/CO-OPS <u>8661070 Springmaid Pier, SC</u> Air / Water Temperature



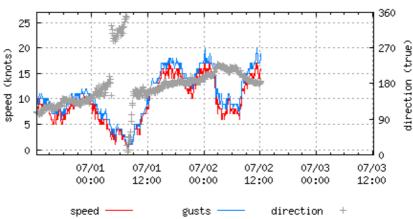
Last Observed Sample: 07/02/2014 12:12 (EDT) Water Temperature: 83.5° F Air Temperature: 82.0° F

NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 07/02/2014 12:12 (EDT). Data relative to MHHW Observed: -0.68 ft. Predicted: -0.85 ft. Residual: 0.17 ft. Historical Maximum Water Level: Sep 25 2008, 2.81 ft. Next High Tide: 07/02/2014 23:47 (EDT), -0.50 ft.

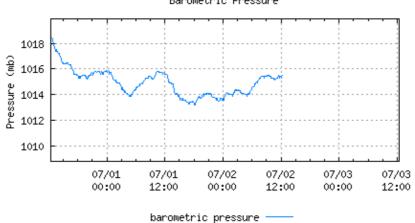
NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Wind Speed / Gusts / Direction



Last Observed Sample: 07/02/2014 12:12 (EDT)

Wind Speed: 16 knots Gusts: 19 knots Direction: 187° T

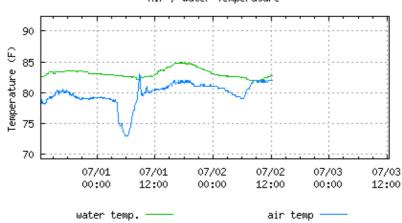
NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Barometric Pressure



Last Observed Sample: 07/02/2014 12:12 (EDT)

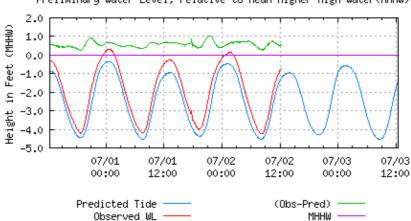
Barometric Pressure: 1015.5 mb

NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Air / Water Temperature



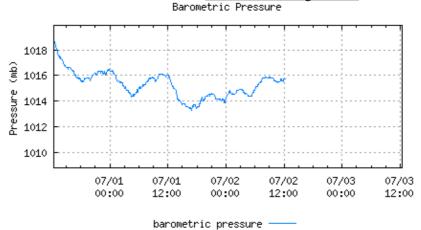
Last Observed Sample: 07/02/2014 12:12 (EDT) Water Temperature: 82.8° F Air Temperature: 82.0° F

NOAA/NOS/CO-OPS <u>8658120 Wilmington</u>, NC Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 07/02/2014 12:12 (EDT). Data relative to MHHW Observed: -0.72 ft. Predicted: -1.26 ft. Residual: 0.54 ft. Historical Maximum Water Level: Oct 15 1954, 3.47 ft. Next High Tide: 07/02/2014 14:00 (EDT), -0.95 ft.

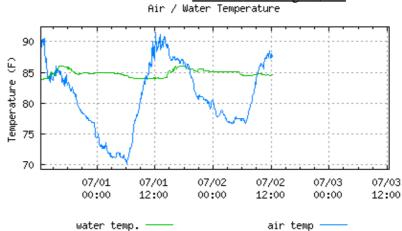
NOAA/NOS/CO-OPS <u>8658120 Wilmington, NC</u>



Last Observed Sample: 07/02/2014 12:12 (EDT)

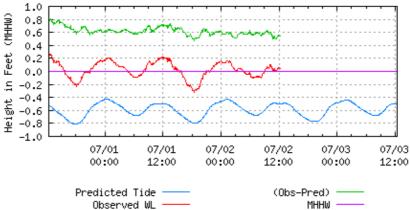
Barometric Pressure: 1015.7 mb

NOAA/NOS/CO-OPS <u>8658120 Wilmington</u>, NC



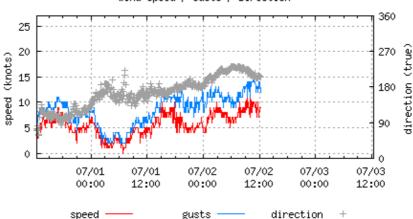
Last Observed Sample: 07/02/2014 12:12 (EDT) Water Temperature: 84.6° F Air Temperature: 87.6° F

$NOAA/NOS/CO-OPS ~ \underline{8654467~USCG~Station~Hatteras,~NC} \\ Preliminary~Water~Level,~relative~to~Mean~Higher~High~Water(MHHW) \\$



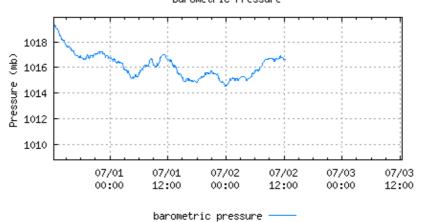
Last Observed Sample: 07/02/2014 12:12 (EDT). Data relative to MHHW Observed: 0.05 ft. Predicted: -0.50 ft. Residual: 0.55 ft. Historical Maximum Water Level: Oct 29 2012, 4.15 ft. Next High Tide: 07/02/2014 13:12 (EDT), -0.49 ft.

NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatteras</u>, NC Wind Speed / Gusts / Direction



Last Observed Sample: 07/02/2014 12:12 (EDT) Wind Speed: 9 knots Gusts: 12 knots Direction: 205° T

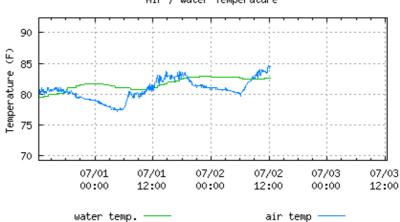
NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatteras, NC</u> Barometric Pressure



Last Observed Sample: 07/02/2014 12:12 (EDT)

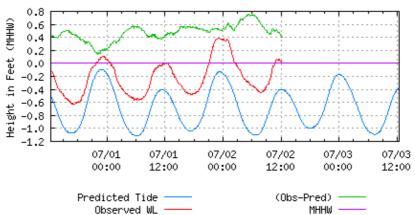
Barometric Pressure: 1016.6 mb

NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatterss</u>, NC Air / Water Temperature



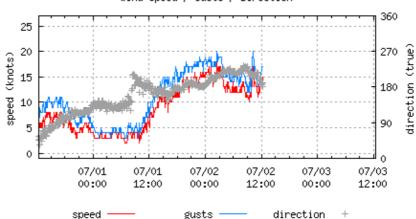
Last Observed Sample: 07/02/2014 12:12 (EDT) Water Temperature: 82.6° F Air Temperature: 84.4° F

NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



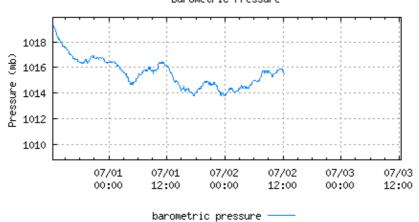
Last Observed Sample: 07/02/2014 12:18 (EDT). Data relative to MHHW Observed: 0.01 ft. Predicted: -0.40 ft. Residual: 0.41 ft. Historical Maximum Water Level: Aug 28 2011, 6.32 ft. Next High Tide: 07/02/2014 23:59 (EDT), -0.17 ft.

NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina</u>, NC Wind Speed / Gusts / Direction



Last Observed Sample: 07/02/2014 12:18 (EDT) Wind Speed: 14 knots Gusts: 17 knots Direction: 190° T

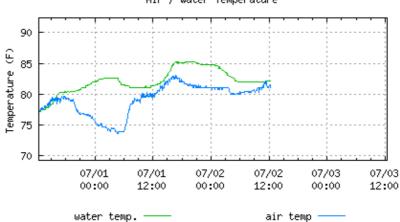
NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina, NC</u> Barometric Pressure



Last Observed Sample: 07/02/2014 12:18 (EDT)

Barometric Pressure: 1015.5 mb

NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina, NC</u> Air / Water Temperature



Last Observed Sample: 07/02/2014 12:18 (EDT) Water Temperature: 82.2° F Air Temperature: 81.5° F

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8723214	Virginia Key, FL	07/02/2014 12:18 (EDT)	0.36 ft	-0.48 ft	0.84 ft	0.51 ft
8722670	Lake Worth Pier, FL	07/02/2014 12:12 (EDT)	0.43 ft	-0.63 ft	1.06 ft	0.89 ft
8721604	Trident Pier, FL	07/02/2014 12:18 (EDT)	-0.32 ft	-1.04 ft	0.72 ft	0.73 ft
8720218	Mayport (Bar Pilots Dock), FL	07/02/2014 12:18 (EDT)	-0.24 ft	-0.88 ft	0.64 ft	0.23 ft
8720030	Fernandina Beach, FL	07/02/2014 12:18 (EDT)	-0.59 ft	-1.39 ft	0.80 ft	0.07 ft
8665530	Charleston, SC	07/02/2014 12:12 (EDT)	-0.53 ft	-1.13 ft	0.60 ft	0.03 ft
8661070	Springmaid Pier, SC	07/02/2014 12:12 (EDT)	-0.93 ft	-1.25 ft	0.32 ft	-0.19 ft
8658163	Wrightsville Beach, NC	07/02/2014 12:12 (EDT)	-0.68 ft	-0.85 ft	0.17 ft	0.09 ft
8658120	Wilmington, NC	07/02/2014 12:12 (EDT)	-0.72 ft	-1.26 ft	0.54 ft	0.14 ft
8654467	USCG Station Hatteras, NC	07/02/2014 12:12 (EDT)	0.05 ft	-0.50 ft	0.55 ft	0.21 ft
8652587	Oregon Inlet Marina, NC	07/02/2014 12:18 (EDT)	0.01 ft	-0.40 ft	0.41 ft	0.39 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce